

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) An electronic device comprising:
a substrate; and
a film disposed on the substrate, the film containing atomic layer deposited LaAlO₃
having a predetermined amount of lanthanum and aluminum on a surface on which the film contacts.
2. (Original) The electronic device of claim 1, wherein the film includes Al₂O₃ and La₂O₃.
3. (Original) The electronic device of claim 1, wherein the film is substantially amorphous.
4. (Original) The electronic device of claim 1, wherein the film exhibits a dielectric constant in the range from about 21 to about 25.
5. (Original) The electronic device of claim 1, wherein the film exhibits an equivalent oxide thickness (t_{eq}) in the range from about 1.5 Angstroms to about 5 Angstroms.
6. (Original) The electronic device of claim 1, wherein the film exhibits an equivalent oxide thickness (t_{eq}) of less than 3 Angstroms.
7. (Currently Amended) A transistor comprising:
a body region between first and second source/drain regions in a substrate;
a film on the body region between the first and second source/drain regions, the film containing atomic layer deposited LaAlO₃ having a predetermined amount of lanthanum and aluminum in contact with the body region; and
a gate coupled to the film;
the film being formed by atomic layer deposition including:
pulsing a lanthanum containing precursor into a reaction chamber containing a

substrate;

pulsing a first oxygen containing precursor into the reaction chamber;
pulsing an aluminum containing precursor into a reaction chamber; and
pulsing a second oxygen containing precursor into the reaction chamber.

8. (Original) The transistor of claim 7, wherein pulsing a lanthanum containing precursor into a reaction chamber includes pulsing a La(thd)3 (thd = 2,2,6,6- tetramethyl-3,5-heptanedione) source gas into the reaction chamber.

9. (Original) The transistor of claim 7, wherein pulsing an aluminum containing precursor into the reaction chamber includes pulsing a DMEAA source gas into the reaction chamber.

10. (Previously Presented) The transistor of claim 7, wherein pulsing an aluminum containing precursor into the reaction chamber includes pulsing a trimethylaluminum source gas into the reaction chamber.

11. (Original) The transistor of claim 7, wherein the transistor further includes:
a floating gate situated between the body region and the gate; and
a floating gate dielectric disposed on the floating gate, separating the floating gate and the gate, the floating gate dielectric containing atomic layer deposited LaAlO₃.

12. (Currently Amended) A transistor comprising:
a body region between first and second source/drain regions in a substrate;
a film on the body region between the first and second source/drain regions, the film containing atomic layer deposited LaAlO₃ having a predetermined amount of lanthanum and aluminum in contact with the body region; and
a gate coupled to the film.

13. (Currently Amended) The transistor of claim 12, wherein the dielectric layer film includes Al₂O₃ and La₂O₃.

14. (Currently Amended) The transistor of claim 12, wherein the ~~dielectric layer film~~ is substantially amorphous.

15. (Currently Amended) The transistor of claim 12, wherein the ~~dielectric layer film~~ exhibits a dielectric constant in the range from about 21 to about 25.

16. (Currently Amended) The transistor of claim 12, wherein the ~~dielectric layer film~~ exhibits an equivalent oxide thickness (t_{eq}) in the range from about 1.5 Angstroms to about 5 Angstroms.

17. (Currently Amended) The transistor of claim 12, wherein the ~~dielectric layer film~~ exhibits an equivalent oxide thickness (t_{eq}) of less than 3 Angstroms.

18. (Original) The transistor of claim 12, wherein the transistor further includes:
a floating gate situated between the body region and the gate; and
a floating gate dielectric disposed between the floating gate and the gate.

19. (Original) The transistor of claim 12, wherein the transistor further includes:
a floating gate situated between the body region and the gate; and
a floating gate dielectric disposed between the floating gate and the gate, the floating gate dielectric containing atomic layer deposited LaAlO₃.

20. (Withdrawn – Currently Amended) A memory comprising:
a number of access transistors, each access transistor including:
a body region between first and second source/drain regions in a substrate;
a film on the body region between the first and second source/drain regions, the film containing atomic layer deposited LaAlO₃ having a predetermined amount of lanthanum and aluminum in contact with the body region; and
a gate coupled to the film;
a number of word lines coupled to a number of the gates of the number of access

transistors;

 a number of source lines coupled to a number of the first source/drain regions of the number of access transistors; and

 a number of bit lines coupled to a number of the second source/drain regions of the number of access transistors;

 the film being formed by atomic layer deposition including:

 pulsing a lanthanum containing source gas into a reaction chamber containing a substrate;

 pulsing an aluminum containing source gas into a reaction chamber.

21. (Withdrawn) The memory of claim 20, wherein pulsing a lanthanum containing source gas into a reaction chamber includes pulsing a La(thd)3 (thd = 2,2,6,6- tetramethyl-3,5-heptanedione) source gas into the reaction chamber.

22. (Withdrawn) The memory of claim 20, wherein pulsing an aluminum containing source gas into the reaction chamber includes pulsing a DMEAA source gas into the reaction chamber.

23. (Withdrawn -Previously Presented) The memory of claim 20, wherein pulsing an aluminum containing source gas into the reaction chamber includes pulsing a trimethylaluminum source gas into the reaction chamber.

24. (Withdrawn -Previously Presented) The memory of claim 20, wherein the memory is a flash memory.

25. (Withdrawn) The memory of claim 20, wherein the memory is a dynamic read access memory.

26. (Withdrawn – Currently Amended) A memory comprising:

 a number of access transistors, each access transistor including:

 a body region between first and second source/drain regions in a substrate;

a film on the body region between the first and second source/drain regions, the film containing atomic layer deposited LaAlO₃ having a predetermined amount of lanthanum and aluminum in contact with the body region; and

a gate coupled to the film;

a number of word lines coupled to a number of the gates of the number of access transistors;

a number of source lines coupled to a number of the first source/drain regions of the number of access transistors; and

a number of bit lines coupled to a number of the second source/drain regions of the number of access transistors.

27. (Withdrawn-Currently Amended) The memory of claim 26, wherein the dielectric layer film exhibits a dielectric constant in the range from about 21 to about 25.

28. (Withdrawn-Currently Amended) The memory of claim 26, wherein the dielectric layer film exhibits an equivalent oxide thickness (t_{eq}) in the range from about 1.5 Angstroms to about 5 Angstroms.

29. (Withdrawn) The memory of claim 26, wherein each access transistor further includes:

a floating gate situated between the body region and the gate; and

a floating gate dielectric disposed between the floating gate and the gate, the floating gate dielectric containing atomic layer deposited LaAlO₃.

30. (Withdrawn) The memory of claim 26, wherein the memory is a dynamic read access memory.

31. (Withdrawn -Previously Presented) The memory of claim 26, wherein the memory is a flash memory.

32. (Withdrawn – Currently Amended) An information handling device comprising:
a processor;
a memory, the memory including:
a number of access transistors, each access transistor having:
first and second source/drain regions in a substrate;
a body region between the first and second source/drain regions;
a film on the body region between the first and second source/drain regions, the film containing atomic layer deposited LaAlO₃ having a predetermined amount of lanthanum and aluminum in contact with the body region; and
a gate coupled to the film;
a number of word lines coupled to a number of the gates of the number of access transistors;
a number of source lines coupled to a number of the first source/drain regions of the number of access transistors;
a number of bit lines coupled to a number of the second source/drain regions of the number of access transistors; and
a system bus that couples the processor to the memory array;
the film being formed by atomic layer deposition including:
pulsing a lanthanum containing source gas into a reaction chamber containing the substrate; and
pulsing an aluminum containing source gas into the reaction chamber.

33. (Withdrawn) The information handling device of claim 32, wherein pulsing a lanthanum containing source gas into a reaction chamber includes pulsing a La(thd)3 (thd = 2,2,6,6-tetramethyl-3,5- heptanedione) source gas into the reaction chamber.

34. (Withdrawn) The information handling device of claim 32, wherein pulsing an aluminum containing source gas into the reaction chamber includes pulsing a DMEAA source gas into the reaction chamber.

35. (Withdrawn -Previously Presented) The information handling device of claim 32, wherein pulsing an aluminum containing source gas into the reaction chamber includes pulsing a trimethylaluminum source gas into the reaction chamber.

36. (Withdrawn) The information handling device of claim of claim 32, wherein each access transistor further includes:

- a floating gate situated between the body region and the gate; and
- a floating gate dielectric disposed between the floating gate and the gate.

37. (Withdrawn) The information handling device of claim 32, wherein the information handling device is a computer.

38. (Withdrawn – Currently Amended) An information handling device comprising:

a processor;

a memory, the memory including:

a number of access transistors, each access transistor having:

first and second source/drain regions in a substrate;

a body region between the first and second source/drain regions;

a film on the body region between the first and second source/drain regions, the film containing atomic layer deposited LaAlO₃ having a predetermined amount of lanthanum and aluminum in contact with the body region; and

a gate coupled to the film;

a number of word lines coupled to a number of the gates of the number of access transistors;

a number of source lines coupled to a number of the first source/drain regions of the number of access transistors; and

a number of bit lines coupled to a number of the second source/drain regions of the number of access transistors; and

a system bus that couples the processor to the memory array.

39. (Withdrawn-Currently Amended) The information handling device of claim 38, wherein the dielectric layer film exhibits a dielectric constant in the range from about 9 to about 30.

40. (Withdrawn-Currently Amended) The information handling device of claim 38, wherein the dielectric layer film exhibits an equivalent oxide thickness (t_{eq}) in the range from about 1.5 Angstroms to about 5 Angstroms.

41. (Withdrawn -Previously Presented) The information handling device of claim 38, wherein the memory is a flash memory.

42. (Withdrawn -Previously Presented) The information handling device of claim 38, wherein the memory is a dynamic read access memory.

43. (Withdrawn -Previously Presented) The information handling device of claim 38, wherein each access transistor further includes:

a floating gate situated between the body region and the gate; and

a floating gate dielectric disposed between the floating gate and the gate, the floating gate dielectric containing atomic layer deposited LaAlO₃.

44. (Withdrawn) The information handling device of claim 38, wherein the processor is a microprocessor.

45. (Withdrawn) The information handling device of claim 38, wherein the information handling device is a computer.